

REMARKS

Claims 1-19 and 26-38 are pending and subject to an election of species requirement. The Office Action states that the claims are directed to more than one species, and that the species lack unity of invention because they are not so linked as to form a single general inventive concept.

The Examiner has required election of a single species from three groups. Applicants elect Group B (a specific choline binding domain as stated in Claim 4), with traverse, as discussed below. Claims readable on the elected species are 1, 5-10, 14-17, 19 and 36-38.

The Claims

Claim 1 previously recited a polypeptide comprising a choline binding domain and a heterologous T helper epitope. Claim 1 is amended to recite a choline binding domain of SEQ ID NO:8 (previously recited in Claim 4) into which a T helper epitope from Tetanus toxin has been inserted. Claims 2-4 and 26-35 have been withdrawn.

Applicants respectfully assert that Unity of Invention exists as all claims share a special technical feature, namely, a fusion partner comprising a choline binding domain and a T helper epitope. Dependent claims recite methods of making and using such fusion partners. Accordingly, there is no “a priori” lack of unity. No prior art has been cited against the claims; applicants further point to the corresponding issued European patent as evidence that there is no “a posteriori” lack of unity. Withdrawal of the present election requirement is requested.

A copy of the corresponding issued EP patent (EP 1511768) and the International Preliminary Examination Report (for parent PCT/EP03/06096) is enclosed for the Examiner’s convenience.

The pending claims are directed to: polypeptides useful as fusion partners, where the polypeptide contains a choline binding domain of SEQ ID NO:8 and a T-helper epitope; fusion proteins comprising such a fusion partner; nucleic acids encoding such fusion partners; expression vectors and host cells comprising such nucleic acid sequences; compositions comprising such fusion proteins; a process for the preparation of such compositions.

The present fusion partners act as immunological fusion partners (to enhance immune response, see paras 0001 and 0030) and/or as expression enhancers (see paras 0001 and 0020).

The claimed fusion partners include a portion of the choline binding domain from *Streptococcus pneumoniae* LytA (an N acetyl-L-alanine amidase). As stated in Paragraph 0002, the C-terminal domain of LytA is responsible for choline affinity and anchorage to the cell wall; the N-terminal domain is responsible for catalytic activity. As stated in Paragraph 0003, the C-terminal domain of LytA comprises a tandem of six imperfect repeats, where each repeat is 20 - 21 amino acids. The sequences of the six repeats are shown at Paragraphs 0004 – 0009, in Figure 1, and in SEQ ID NOs: 1-8.

Claim 1 has been amended to recite a polypeptide of no more than 140 amino acids (see paragraph 0060) comprising SEQ ID NO:8, wherein a T helper epitope from Tetanus toxin is inserted into SEQ ID NO:8 (see paragraphs 0033 and 0039). SEQ ID NO:8 is part of the choline binding domain of LytA, and consists of a truncated repeat 1 (the final 5 amino acids of repeat 1) and repeats 2-6.

New Claim 36 recites a polypeptide according to claim 1 where the T helper epitope is selected from the P2 and P30 epitopes of tetanus toxoid (support in specification as filed, e.g., at Para 0039).

New claim 37 recites a polypeptide according to claim 1 and consisting of amino acid residues 5-133 of SEQ ID NO:27. Residues 5-133 comprise SEQ ID NO:8 with a tetanus toxoid P2 epitope inserted therein. Support is found in the specification as filed, e.g., at Para 0039, 0040, SEQ ID NO:8, and SEQ ID NO:27.

Examination of the Application on the merits is requested.

Respectfully submitted,

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Enclosed:

EP patent (EP 1511768)
Communication pursuant to Article 96(2) EPC for EP1511768 (dated 2 May 06)
International Preliminary Examination Report for PCT/EP03/06096